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DISCUSSION

PROFESSOR SHOREY'S CRITICISM OF EDUCATIONAL PSYCHOLOGY

In the February *School Review* Professor Shorey returns to his attack upon the scientific study of education. He maintains that President Hall in particular and "the overwhelming majority of recent writers on education" in general have been "gulling" the public with pretensions to a scientific mastery of the problems of education which when investigated proves to be only an illusion. He asserts that the professional students of education "have magnified their office and enlarged their claims beyond all reason"; and he proposes to fight over the ground inch by inch "until these pretensions are abated within reasonable limits."

I have already¹ recorded my personal gratification that the scientific study of education has reached a point in its development where it merits the criticism that a man of Professor Shorey's scholarly attainments and keen insight can profitably offer. I am glad to note that he wishes to fight the ground over, inch by inch. The battle, as he suggests, promises to be a long one. Would it not be well, before it proceeds farther, to agree upon a code of honor? Every pioneer movement needs criticism, and I am confident that every professional student of education would heartily welcome criticism of the constructive order. But both sides should "play fair," and Professor Shorey has not "played fair" at every point of the game. He accuses us of distorting facts and of deceiving the public. Have his own writings been irreproachable from this point of view? I do not charge him with an intentional appeal to popular prejudice; I do charge him with misrepresentation which, while I assume it to be accidental, is none the less inconsistent with the very rules that he lays down for our conduct.

I may be pardoned for citing in this connection a very brief reference to my own work which appeared in Professor Shorey's earlier article.² Having singled me out as one of the "experts" against whose interpretation of the dogma of formal discipline he places the combined authority of Plato, Aristotle, Faraday, Mill, Lincoln, President Taft, and Anatole France, it would have been only just (considering the rather formidable handicap under which I suffered) to state my position fairly and frankly. My opinion of the possibilities of mental discipline may not be worth citing, but if it is cited I am justified in demanding (no matter how crude or erroneous my judgment may be) that it be stated correctly.

¹ *School and Home Education*, December, 1911.

² "The Case for the Classics," *School Review*, November, 1910, pp. 607, 608, n.

Again, Professor Shorey¹ deceives the lay public with regard to the men who have opposed the dogma of formal discipline in its traditional interpretation. Can we attribute to accident or ignorance the omission of the name of William James from his list of those opposing the older dogma of formal discipline—James, whose skepticism concerning the dogma first set this little ball of experimentation so merrily a-rolling? Would not both the popular and the scientific prestige of William James have damaged the effect of the contrast that Professor Shorey drew in the purely polemical sentence, "Tastes in authorities differ"? Are we to assume that Professor Shorey (who quotes so liberally from the experimental literature) dwelt in ignorance of James's relation to the movement that he condemns so unsparingly? It is one thing to worry the cargo boats and quite another thing to fire a shot across the bows of a Dreadnaught.

And if Professor Shorey views with so complacent a confidence the verdict of crude experience, if he places the observation of the layman above the controlled experiment of the specialist—why did he fail to mention Mark Twain's keen induction, drawn from his grilling experience in learning "by heart" the islands and sand bars, the capes and headlands, even the farmhouses, the trees, and the clumps of bushes along a thousand miles of the Mississippi? Mark Twain may not have been an Aristotle or a Mill; but he was a fairly keen student of human nature, and when he said that memory can be trained into a very "Colossus of capability, *but only in the matters it is daily drilled on*," he formulated from a discipline in memorizing (more harrowing, we believe, than any to which Professor Shorey's favorite authorities were subjected) a conclusion that ought in all fairness to have been cited by our critic.

We contend, therefore, that Professor Shorey tempted his public to believe (1) that the specialists in education whom he named were a unit in the opinion that mental discipline is a myth; and (2) that no one not a professional student of education agreed with them.

Nor can we escape the conclusion that Professor Shorey seriously deceived his public when he ignored so disdainfully the positive factors which experimental investigation offers toward the rehabilitation of the disciplinists' contention. The practical difficulty with the older doctrine lay in the looseness of the thinking upon which it rested. When its advocates could no longer consistently speak of the training of mental "faculties" they utilized a still more reprehensible expression, "mental powers." The latter is the more unfortunate term, since it suggests immediately a deceptive analogy with physical force; and, in addition, it carries with it all of the fallacious implications of the older term, "faculties." The "transfer" experiments, if they did nothing else, at least compelled the statement of the doctrine of formal discipline in mental terms rather than in a physical metaphor. "Concepts of method" or "ideals of procedure" refer to mental processes that may be readily recognized and

¹ "The Case for the Classics," p. 607.

somewhat definitely described. More than this, such terms suggest definite conditions that must be fulfilled if the outcomes assumed by the older disciplinists are to be attained. Professor Shorey gives his readers no intimation of this positive gain that has come out of the experiments on "transfer"; and through this neglect he positively encourages a loose, metaphorical, and thoroughly misleading notion of what "mental discipline" means and how it may be achieved.

It has been one of the aims of those who are trying to take the scientific attitude toward educational problems to develop a system of technical terms that would avoid the dangers inhering in a loose, inexact, metaphorical, and equivocal vocabulary. This is one of the first problems that every science must solve. Many of the terms that education must employ refer to subjective processes, and this fact has increased the difficulty of the task. It is no easy matter to think clearly when the terms in which one thinks are not unequivocal. And it was no easy matter to restate the doctrine of mental discipline in unequivocal terms. A goodly number of fairly able men wrestled hard with the problem before the doctrine took the form that is now accepted by most of the professional students of education. This formulation will doubtless be revised in the light of further knowledge; but, even as it now stands, it is vastly more helpful and suggestive than the older form. And, furthermore, it is the result of serious and sincere effort, and, while Professor Shorey is correct when he asserts that some educationists have placed it before the public in a way that would encourage a misinterpretation, he is thoroughly unjust when he extends this indictment to "an overwhelming majority of recent writers on education."

But Professor Shorey himself, perhaps misled by his evident belief that we are a crowd of abandoned charlatans, does not scruple to encourage an equally reprehensible misinterpretation. When he says that there are in general "no laboratory experiments that teach us anything about the higher mental processes which we cannot observe and infer by better and more natural methods,"¹ he is making an assertion that, for pure dogmatism, could scarcely be matched even in those writings of President Hall that Professor Shorey so strongly condemns. The positive results of experimentation in the realm of the higher mental processes may be meager enough, but to say that, out of these intensive, controlled introspections, nothing has come that could not have been observed and inferred "by other and more natural methods" is quite to misrepresent the primary purpose of experimentation in psychology. The casual observation of mental happenings, like the casual observation of physical phenomena, suggests tentative hypotheses which only *controlled* observation, or experimentation, can permanently establish as valid principles. Psychology, like the physical sciences, has been driven to experimentation because its casual and uncontrolled observations were inconsistent

¹ *Op. cit.*, p. 607.

with one another. One man said that the mind disciplined in one sphere of activity would for that reason work more efficiently in other fields; another man, equally intelligent, denied this "spread" of discipline. One man said that reflective thinking always involved the presence in consciousness of definite sensory images; another man proclaimed with equal confidence that the most effective thinking was quite barren of images. Only controlled experiment can reconcile these apparent inconsistencies, and we maintain that psychological experiment has done much to clarify our thinking in connection with the two problems just cited.

Thus Professor Shorey, in making a sweeping statement to the effect that *all* experimentation in the higher mental processes has been profitless, deceives his public in a most unfortunate fashion; for he is encouraging the indolent, haphazard manner of deriving general principles rather than a rigorous, strenuous, controlled method. He could certainly fulfil his thoroughly honorable and legitimate function of a critic without recourse to the very methods which he criticizes in us—methods which we all deplore as much as he deplores them, but which perhaps we drop into now and then without intent to deceive, just as he seems to have dropped into them with, I like to believe, the most commendable of motives.

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